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PB 01-04

THIS ISSUE

Vocational Provider Performance Measurement

TO:

Vocational Rehabilitation **Providers** Rehabilitation Centers **Retraining Services Providers Placement Agencies** Interpreters Physicians Chiropractic Physicians **Physical Therapists** Occupational Therapists Nurses Pain Clinics

CONTACT:

Jim Kammerer

Medical Program Specialist PO Box 44322 Olympia, WA 98504-4322

(360) 902-6809 FAX: (360) 902-4249 Internet: kamj235@lni.wa.gov

Mary Kaempfe

Medical Program Specialist PO Box 44322 Olympia WA 98504-4322

(360) 902-6811 FAX: (360) 902-4249 Internet: kaem235@lni.wa.gov

Purpose:

This bulletin tells you about Labor and Industries' method to measure vocational rehabilitation provider performance on State Fund claims in all locations. This bulletin does not pertain to self-insured claims.

Specifically, this bulletin includes the following:

- Reasons for measuring provider performance
- Complexity-Adjusted Cost Outcome (CACO) information
- Referral eligibility thresholds (Standard Error of the Mean)
- Auditing
- Resources for more information

The appendices attached to this Provider Bulletin provide detailed technical information about the above subjects. You can find information on other vocational rehabilitation topics in *Provider Bulletin* 01-01 – Vocational Rehabilitation Purchasing, Provider Bulletin 01-03 - Vocational Rehabilitation Billing and the department's web site at http://www.lni.wa.gov/hsa/vocational.htm. Updates to this Provider Bulletin will also be published on the web site.

Why is the department measuring vocational provider performance?

RCW 51.32.095 (5) requires the State Fund to make referrals for vocational rehabilitation services based on performance criteria. The department chose the criteria described in this Provider Bulletin to encourage vocational providers to deliver quality, timely and costeffective services to injured workers and employers.

The regulatory authority for measuring and using provider performance data is provided in WACs 296-19A-280, 296-19A-290 and 296-19A-300. These WACs are effective June 1, 2001 and can be found at the department's web site: http://www.lni.wa.gov/hsa/vocational.htm.

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Performance measurements provide a gauge for the following functions:

- Monitoring the cost and duration of individual referrals;
- Appraising the cost and duration of a VRC's cumulative body of work;
- Evaluating the cost and duration of a firm's cumulative body of work; and
- Comparing a VRC's and firm's performance to their geographic peers.

The department uses the performance measurements to help claim managers refer to providers who have demonstrated a history of quality, cost-effective service delivery to injured workers and employers.

What is a CACO?

The acronym CACO stands for "Complexity-Adjusted Cost Outcome." It is a numerical value determined by a formula that considers the injured worker's work status at the time of vocational referral closure, the payments made to vocational providers, and the referral duration. The department calculates the CACO after the referral is closed

How does the CACO formula work?

After a referral is closed, the adjusted vocational costs are added to the adjusted duration and divided by the outcome credit.¹ The formula for calculating CACO is

\(\frac{\text{(Vocational Costs - Cost Adjustment)} + \text{(Duration - Duration Adjustment)}(\\$ Conversion Factor)}{\text{1.5 for RTW Outcome, or 1.0 for Other Outcomes, or .75 for Fee Cap Outcome}} \text{X .001}\)

Multiply result of above formula by the Referral Weighting Factor

The term **Vocational Costs** refers to the total of the payments made for vocational services during the life of the referral. The costs include professional service fees, mileage, and travel/wait payments for all the individuals who provide service during the referral. For CACO, vocational costs do not include the costs of an approved plan (e.g. tuition, books, school fees, and tools).

Duration is the number of days that elapse from the date the claim manager creates the referral to the date the referral is closed in the department's information system. The referral and closure dates are both counted. The number of days is **converted to dollars** by multiplying the number of adjusted days by \$43.20.²

The divisor for the referral **outcome** reflects the value the department places on different outcomes. A return-to-work outcome is rewarded with a larger divisor to create a lower CACO score. A fee cap outcome is given a smaller divisor which increases the referral CACO score. All other outcomes are considered neutral for CACO purposes.

¹ Adjustments for both cost and duration are discussed under the question "How is the CACO adjusted for complexity?" of this *Provider Bulletin*.

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² The dollar figure used for the conversion equates to the average daily time-loss rate the department paid in 1997. Although the average time loss rate changes over time, the department plans no changes in the duration conversion factor. It is a constant that applies equally to all providers.

Prior to June 1, 2001, the department made two types of referrals – intervention and plan. A **relative weighting factor** was assigned for each referral type to adjust the average intervention CACO to equal the average plan CACO (see table below).

As of June 1, 2001, the department makes 5 types of referrals. The relative weighting factors used to balance the Early Intervention and Plan referrals made under WAC 296-18A will be used for the new referrals made under WAC 196-19A. The new referral types are similar to the previous referral types. Forensic referrals are new and the department does not have any similar historical data. Forensic referrals will not be scored for CACO until referral data is available and analyzed.

The following chart shows the referral weighting factor used to balance the referral types before and after June 1, 2001:

Referral Type Before 6/1/01 (WAC 296-18A)	Referral Type After 6/1/01 (WAC 296-19A)	Referral Weighting Factor
Intervention	Early Intervention	.73
	Ability to Work Assessment	
Plan	Plan Development	.27
	Plan Implementation	

The department will monitor referral patterns after June 1, 2001, and adjust the weighting factor periodically to keep the CACOs balanced. The updates will be posted on the department's web site: http://www.lni.wa.gov/hsa/vocational.htm.

Appendix A includes more CACO information and sample calculations.

How does the Fee Cap described in PB 01-03 relate to the performance measurement process?

The department established fee caps to contain costs. The fee cap is designed so that providers should rarely reach the cost limits. If the cumulative vocational costs reach the fee cap for that referral type, the referral is closed, regardless of case progress at that point. That closure date becomes the date used to calculate referral duration in the referral CACO formula. Mileage and travel/wait payments are not factored into the fee cap computation, but they are included in the referral CACO calculation.

In addition to referral closure, the provider will receive less "credit" for the outcome when the referral CACO is calculated. A fee cap closure will have a divisor of .75 (instead of 1.0), effectively increasing the referral CACO by one-third. For referrals that hit the fee cap and have a return-to-work outcome, the divisor becomes 1.0, rather than 1.5. Please see page 2 of this *Provider Bulletin* to see the variable's placement in the CACO formula.

Vocational providers should work closely with their billing staffs to monitor the cost, relative to progress, of vocational referrals. The department will **not** notify providers of their costs in relationship to the fee caps.

Please refer to *Provider Bulletin 01-03* for more information about fee caps.

How is the CACO adjusted for complexity?

The department recognizes some cases are more difficult than others, and may require more time and services to complete. Sometimes difficulty factors may be used to **adjust the cost and duration calculations** in the CACO formula. The department has identified difficulty factors which, when present, correlate to increased costs and/or longer duration.

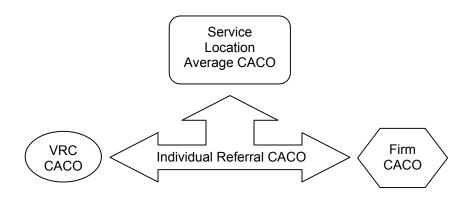
Some factors correlate with cost, and some with duration. Others correlate with interventions or plans. The following table shows which difficulty factors are statistically significant for the types of referrals:

Difficulty Factor	Intervention		Plan	
	Difficulty Factors		Difficulty Factors	
	Duration	Cost	Duration	Cost
Referral Initiated > 180 days After				
Date of Injury	Χ			
Claimant age > 44 Years	X			
Multiple Referrals: > 1 Previous				
Vocational Referral for This Claim	Χ			
Time Loss Compensation Rate > Pre-				
Injury Wage	Χ	Χ	Χ	Χ
Chronic Pain Issues	Χ	Χ	X	Χ
Psychological/Emotional Issues	Χ	Χ	X	Χ
English as a Second Language	Χ	Χ	Χ	Χ
Chemical Dependency	Х	Х	X	Χ
Worker Injured in a Rural County	Х	Х		
Multiple Injury Natures Identified at	_			
Claim Initiation (e.g. Fracture & Burn)	Χ	Χ		

Appendix A includes more information about CACO and the difficulty factor adjustment. A sample CACO calculation with a difficulty adjustment is provided.

What are the aggregate CACOs?

The individual referral CACO is the basic building block for all aggregate CACOs: the VRC CACO, the Firm CACO, and the Service Location Average CACO.



1. Individual Referral CACO

Important characteristics are as follows:

- Each referral has a CACO calculated after the referral is closed.
- The CACO includes all the time and costs associated with that referral, regardless of who or how many people actually did the work.
- Individual referral CACO scores are credited to the assigned VRCs to develop their average VRC CACO scores.
- Individual referral CACOs assigned to the VRCs working for a firm at the time the quarterly closure data is collected are averaged to develop the Firm CACO score.
- All individual referral CACOs within a service location are averaged to compute the Service Location Average CACO.

2. Individual VRC CACO

Important characteristics are as follows:

- A VRC CACO is the average of all individual referral CACOs assigned to that VRC and closed within the reporting period.
- The CACO includes all the time and costs associated with that referral, regardless of who actually did the work. Interns do not receive CACO measurements, because referrals are never assigned to them. Their performance is included in the CACO for the VRC assigned to the referral. In other words, the assigned VRC's CACO calculation will include an intern's work. It will also include the work of third-party providers, such as evaluators who provide vocational testing.
- Individual VRC CACOs will be available to claim managers to help make referral decisions.

3. Firm (Company) CACO

Important characteristics are as follows:

- The firm or company CACO is the average of all the individual referral CACOs for referrals assigned to all the VRCs working in the specific branch for the firm (company) when the quarterly closure data is collected.
 - All referrals completed by the VRCs within the reporting period are included. The referrals may include closures completed when the VRC worked for a different company.
 - > If a VRC leaves a firm, the referrals for that VRC will not be included in subsequent calculations for that firm's CACO.³
- The firm CACO is service location- and branch-specific. It is not a statewide calculation. Firms with multiple branches will have separate firm CACOs calculated for each branch.
- This information is available to claim managers to help make referral decisions.

4. Service Location Average CACO

• A service location average CACO is the average of all individual referral CACOs in that service location during the sample period.

³ Firms and VRCs are reminded to update the department immediately of any changes in relationship between payees and service providers.

How is CACO calculated for transferred referrals?

Referral transfers, as the department and provider community have used them in the past, no longer exist.

If a referral was directly referred to a VRC, the VRC takes the referral with him or her when moving to a new firm in the same service location. The payee, service provider and branch numbers change, but the referral identification number remains the same. The cumulative time and costs for the work performed while working for all firms are included in the individual referral CACO score. That referral score is included in the aggregate VRC, new firm, and service location CACOs.

In all other situations in which a VRC change is needed, the referral is closed and the claim manager makes a new referral. Each referral is considered separate. The costs, duration, and outcome for each referral closure are calculated into separate CACO scores for each referral.

How will CACO be calculated for Out-of-State referrals?

Individual referral CACOs for out-of-state closures will be calculated with the same formula as any other referral. CACO scores for out-of-state referrals assigned to in-state providers will be averaged along with instate referrals for the aggregate VRC firm and Washington service location CACOs. This is true even when the referral is assigned to an in-state provider but the work is performed by an out-of-state provider. That work is considered the responsibility of the *assigned* Washington provider, just as if it were being performed by an intern or other third party.

Each state, other than Washington, is considered its own service location. For example, all referral closures assigned by the department to providers in California will be averaged into a Service Location Average CACO for California. Similarly, any out-of-state providers with at least 10 referral closures during the sample period will have their own published performance measurement scores.

What is the <u>S</u>tandard <u>E</u>rror of the <u>M</u>ean (SEM)?

The Standard Error of the Mean (SEM) is a statistical method the department uses to measure the *relationship* between the provider's average performance and the overall service location's average performance. The SEM can be used to compare a provider with his or her peers. The comparison becomes *average* (VRC or firm CACO) *to average* for all work completed within that service location.

The SEM is used to determine which providers may receive referrals with *Eligible* (E) or *Conditional* (C) status. Claim managers must document the rationale for referring to a provider with *Conditional* (C) status. This issue is discussed in more detail on page 7 and appendices B and D of this *Provider Bulletin*.

What is the sample period for the Performance Measurement Report?

Performance Measurement Reports are published quarterly with updated CACO and SEM scores for vocational providers. The sample period is the time period that determines which referral closures are included in the CACO and SEM calculations.

The July 2002 report will be the last report to include a 12-month sample period. That report will publish scores resulting from 12 months for firms and 10 months for VRCs. Between July 2002 and April 2003, the sample period will be lengthened until firms and VRCs both have 18 months of referral data available. From the April, 2003 report forward, the sample period will include 18 months (6 quarters) of data.

Each quarter, the oldest quarter data will drop off, and a new quarter will be added. There is always a 3-month lag between the most recent month of data included and the report, allowing bills received after the referral closure to be processed and included.

Please see Appendix C for a table showing the report dates through the alignment of firm and VRC sample periods.

How is the SEM used in the referral decision-making process?

The performance measurement data is available to claim managers to assist in making referrals. The information is updated quarterly.

Vocational providers whose SEM is below the eligibility threshold, when compared to their service location peers, are *Eligible* to receive referrals.

What is *Conditional* eligibility? This category includes providers who have demonstrated cost and duration performance <u>equal to or above</u> the eligibility threshold when compared to their service location peers. These providers may receive referrals, but the claim manager must document the rationale for making referrals to providers in *Conditional* status.

Claim managers may consider referring to *Conditional* providers only in specific situations. The situations are listed in Appendix D.

Until July 2002, providers who have an SEM below 3.0 are *Eligible*. From July 2002 forward, the eligibility threshold will be dependent on the number of closures a provider had during the sample period. A table showing the eligibility thresholds effective July 2002 can be found in Appendix D.

How does a provider receive referrals on a "trial basis"?

WAC 296-19A-300 allows the department to refer to otherwise qualified providers without performance measurements on a trial basis. Referrals are not guaranteed. If trial basis referrals are made, they are subject to concurrent and/or retrospective monitoring by Private Sector Rehabilitation Services (PSRS). Eligibility for additional referrals will be based on performance measurement of the trial basis referrals. Providers with 10 closures within a sample period will have published CACO and SEM scores and be *Eligible* or *Conditional* like any other provider.

How is the department measuring a provider's conformance with department rules and accepted standards of good practice?

The department may conduct performance audits of the work done by firms and/or VRCs on a for-cause or random basis. The purpose of an audit is to ensure that:

- quality services are provided to injured workers and employers, and
- services are provided within the accepted standards of good practice, and
- services are delivered in compliance with statute and rules.

Audit findings can result in corrective actions. Examples of corrective actions include, but are not limited to, recoupment of money paid for services, penalties for findings associated with billing and/or performance issues, and/or ordering the provider to develop a corrective action plan to address findings. A provider's ability to receive referrals can be affected by negative findings in a performance audit.

Where can you get more information on vocational provider performance measurement?

The department has an Internet site http://www.lni.wa.gov/hsa/vocational.htm which offers information and forms on the department's vocational rehabilitation policies. Examples of resources include the following:

- WAC 296-19A (Vocational Rehabilitation WACs)
- A *Frequently Asked Questions and Comments* section that addresses many questions and issues raised about CACO, performance ratings, and other WAC 296-19A implementation issues
- Vocational Provider Performance Measurement Report
- Provider Bulletins

APPENDIX A

CACO

CACO Formula

The formula for calculating CACO is

\(\frac{\text{(Vocational Costs - Cost Adjustment)} + \text{(Duration - Duration Adjustment)} \(\sigma\) Conversion Factor\)
1.5 for RTW Outcome, or 1.0 for Other Outcomes, or .75 for Fee Cap Outcome

Multiply result of above formula by the Referral Weighting Factor

Complexity Adjustment

When a referral is closed, the costs and duration are compared to the statewide averages (means). If cost or duration exceed one standard deviation above the statewide mean, the computer scans the electronic claim file for existing difficulty factors.⁴

The adjustment calculation for cost or duration is as follows:

\(\begin{align*} \text{Number of Applicable Difficulty Factors Identified} \\ \text{Total Number of Difficulty Factors Possible for Referral Type} \end{align*} \) \(X \) Statewide Standard Deviation

⁴ The standard deviation will be posted on the quarterly *Provider Performance Measurement Report*.

Difficulty Factors

The following table shows which difficulty factors are statistically significant for the types of referrals and how much weight each factor carries in the adjustment for cost or duration:

Difficulty Factor	Intervention		Plan	
	Difficulty Factors		Difficulty Factors	
	Duration	Cost	Duration	Cost
Referral Initiated >				
180 days After Date of Injury	X			
Claimant age > 44 Years	Х			
Multiple Referrals: > 1 Previous Vocational				
Referral for This Claim	X			
Time Loss Compensation Rate > Pre-Injury				
Wage	X	Χ	X	Χ
Chronic Pain Issues	Х	Х	Х	Χ
Psychological/Emotional Issues	Х	Х	Х	Χ
English as a Second Language	Х	Х	Х	Χ
Chemical Dependency	Х	Х	Х	Χ
Worker Injured in a Rural County	Х	Х		
Multiple Injury Natures Identified at Claim				
Initiation (e.g. Fracture and Burn)	Х	Χ		

Percentage Applied to Adjustment for Each	10%	14.3%	20%	20%
Identified Factor	(1/10)	(1/7)	(1/5)	(1/5)

Example: In an intervention referral, duration exceeds 1 standard deviation and 3 difficulty factors are identified. Three factors are 30% of the 10 possible difficulty factors for intervention duration. Thirty percent multiplied by the standard deviation is the duration adjustment for that referral's CACO calculation. See the CACO formula on the previous page for the placement of the adjustment. (In other words, the referral CACO will be adjusted by subtracting 30% of the standard deviation from the duration.)

Referral Weighting Factors

The following chart shows the referral weighting factor used to balance the referral types before and after June 1, 2001:

Referral Type Before 6/1/01	Referral Type After 6/1/01	Referral Weighting Factor
Intervention	Early Intervention	.73
	Ability to Work Assessment	
Plan	Plan Development	.27
	Plan Implementation	

Sample CACO Calculations:

Example 1 – Complexity Adjustment for Duration: An intervention was closed with a Further Services Appropriate outcome 350 days after the referral was made. The vocational costs on the referrals totaled \$2,606.81.

• The duration of 350 days is more than 1 standard deviation above the mean for intervention duration. (Average for Intervention Duration of 169 days + Intervention Duration Standard Deviation of 178 days) Two intervention duration difficulty factors are identified.

• The cost of \$2,606.81 is below a standard deviation above the mean for intervention costs. There are no adjustments for costs on this referral.

$$\frac{2,606.81 + (314.40 \times 43.20)}{1.0} = \frac{2,606.81 + 13,582.08}{1.0} = 16,188.89$$

16,188.89 X (.73 Intervention Referral Weighting Factor) = 11,817.89

11.817.89 X .001 = 11.82 Referral CACO

Note: This referral CACO is high. But, it is for only one referral. It will be averaged with other referral CACOs to compile the aggregate VRC, firm and service location CACOs. Without adjusting for complexity, the CACO would be 12.94 for this referral.

Example 2 – No Complexity Adjustment: A plan referral was closed in 210 days when the worker successfully completed a retraining plan. The vocational costs during the referral totaled \$1,998.65.

- The duration is under the 1 standard deviation over the mean mark. No complexity adjustments for duration are indicated.
- The vocational costs are also under the 1 standard deviation over the mean mark. No complexity adjustments for vocational costs are indicated.

$$\frac{\left(\text{Vocational Costs} = 1,998.65\right) + \left(\text{Duration} = 210 \text{ days}\right)\!43.20}{1.0 \text{ for ATW Outcome}} = \frac{1,998.65 + 9,072.00}{1.0} = 11,070.65$$

11,070.65 X (.27 Plan Referral Weighting Factor)= 2,989.08

2,989.08 X .001 = 2.99 Referral CACO

Appendix B

Standard Error of the Mean

The formula for calculating SEM in this context follows:

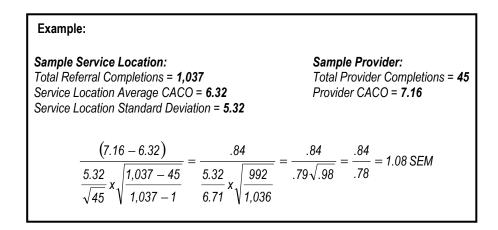
$$\frac{\left(\textit{Provider CACO - Service Location Average CACO}\right)}{\textit{Service Location Standard Deviation}} X \sqrt{\frac{\textit{Service Location Completions - Provider Completions}}{\left(\textit{Service Location Completions - 1}\right)}}$$

The *numerator* of the SEM formula describes the relationship between the individual provider's average performance and the average performance of all providers in a specific service location. Performance for both is expressed by CACO.

Both sides of the *denominator* in the SEM formula work to adjust the calculation for sample size.

The *left side of the denominator* is an adjustment to the performance range to make allowance for differences in sample sizes. This part of the equation helps to adjust for providers with small numbers of referrals.

The *right side of the denominator* defines the ratio between the amount of work completed by the individual provider and the total volume of work completed (referral closures) in a specific service location. A provider with more closures has more impact on the overall service location performance.



Appendix C

Vocational Provider Performance Measurement Report Schedule

During the development of the performance measurement system, the sample period has been a 12-month period that determined which referral closures were included in the CACO and SEM calculations. The sample period will increase to 18 months so most VRCs can generate enough closures (at least 10) for their scores to be considered statistically representative of their work. Because individual VRCs and new firms will not begin receiving referrals that will count toward their CACOs until June 1, 2001, it will be some time before they have enough closures to build their own scores. Firms contracted with the department before June 1, 2001, will have measurable closures from existing referrals.

The department will adhere to the following schedule to align the firm and VRC sample periods:5

Report Date	Sample Period –	No.	Sample Period –	No.
	Previously-Contracted Firms	Mos.	New Providers & VRCs	Mos.
July 2001	4/1/00-3/31/01	12	NA	NA
October 2001	7/1/00-6/30/01	12	NA	NA
January 2002	10/1/00-9/30/01	12	NA	NA
April 2002	1/1/01- 12/31/01	12	NA	NA
July 2002	4/1/01-3/31/02	12	6/1/01-3/31/02	10
October 2002	4/1/01-6/30/02	15	6/1/01-6/30/02	13
January 2003	4/1/01-9/30/02	18	6/1/01-9/30/02	16
April 2003	7/1/01-12/31/02	18	7/1/01-12/31/02	18
July 2003	10/1/01-3/31/03	18	10/1/01-3/31/03	18

All referrals closed during the sample period will be included into the providers' CACO and SEM calculations.

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⁵ VRCs who achieve at least 10 closures will have published CACO and SEM scores beginning with the July 2002 report.

Appendix D

SEM Eligibility Threshold Table Beginning July 1, 2002

The table below shows the SEM eligibility thresholds for various sample sizes:

# of Closures	SEM Threshold	# of Closures	SEM Threshold
10	2.262	26	2.060
11	2.228	27	2.056
12	2.201	28	2.052
13	2.179	29	2.048
14	2.160	30	2.045
15	2.145	40	2.023
16	2.132	50	2.010
17	2.120	61	2.000
18	2.110	70	1.995
19	2.101	80	1.990
20	2.093	90	1.987
21	2.086	100	1.984
22	2.080	150	1.976
23	2.074	200	1.972
24	2.069	250	1.970
25	2.064	1000	1.962

A more comprehensive table will be available at the department's web site: http://www.lni.wa.gov/hsa/vocational.htm

Until July 2002, providers who have an SEM below 3.0 are *Eligible*. Beginning July 2002, the eligibility threshold will be dependent on the number of closures a provider has during the sample period.

A provider must have at least 10 closures to have published CACO and SEM scores.

Claim managers may consider referring to *Conditional* providers only in the following specific situations:

- 1. Provider has special expertise with a specific type of injury, or
- 2. Provider has special expertise in a particular industry, or
- 3. Proximity within the service area between the provider and the injured worker, or
- 4. Provider has non-English communication skills, or
- 5. Non-availability of an Eligible provider to accept and complete the referral, or
- 6. Continuity of service when a claim is re-referred (e.g. after medical instability), or
- 7. Request of a party with direct interest in the referral outcome (e.g. injured worker, employer), or
- 8. Exception to policy authorized